

## Advantages of automated deburring with engraflexx

Main advantage: saving of the workpiece deburring as a separate operation. This means that **even parts with undefined edges** come out of the production line completely deburred and can be further processed directly.

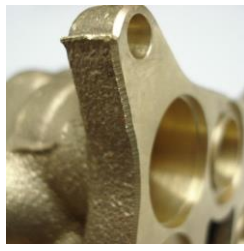
### Use in CNC machine



uniformly  
deburred edges



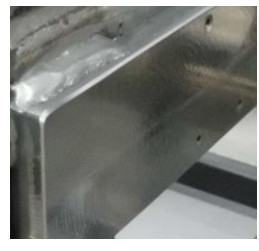
automatically  
exchangeable



cast, forged or  
pressed parts



flame cut or  
laser-cut parts



reworked  
welding parts

### Features of the procedure

The deburring is integrated in the machining process in the CNC machine

- **Fast:** very high feed rates can be achieved by using multi-tooth router bits, i.e. deburring usually takes only a few seconds
- **Wear-resistant:** the solid carbide router bits used are extremely wear-resistant, which guarantees a very long service life
- **Process reliability:** differences in dimensions and position between the programmed contour and the effective workpiece edge are automatically compensated by the tool, i.e. all workpiece contours are automatically and uniformly deburred

### Range of application

- Workpiece deburring
  - deburring of castings, forgings, pressed parts etc.
  - deburring of more complex contours (transitions in bevels, curves etc.)
  - deburring of larger, interlocking bores
- Part reworking
  - reworking and levelling of protruding cast separation joints etc.
  - milling off protruding bones, sprues etc.
- Surface Improvement
  - smoothing or polishing of flat or uneven workpiece surfaces by means of resiliently mounted grinding or polishing wheels, brushes etc.

### **Advantage: Quality and process reliability**

- Saving of the separate work step for part deburring: each part comes automatically from the CNC machine completely deburred
- Each part is always uniformly deburred, even if the parts are positioned differently or if there are dimensional differences between the different parts
- Simplified programming, with complex contours it does not have to be programmed exactly

### **Further advantages**

- Security
  - no unreliably deburred or forgotten edges
  - no damage to parts or scrap caused by improper deburring
- Employee Relief
  - no additional handling for deburring the parts
  - no monitoring of the additional deburring process
  - no risk of injury during parts handling or deburring
  - no dirt or noise pollution from manual deburring
- Less space required: no intermediate storage of the manufactured parts

### **Alternative: deburring with robot**

If the processing time of the workpieces on the CNC machine is to be kept as short as possible, deburring with robots is an alternative. The workpiece is often moved past the deburring tool by the robot, i.e. the robot is used for handling and deburring tasks.

Usually deburring tools with integrated pneumatically or electrically operated drive spindles are used for this purpose, which are also flexibly mounted to compensate for dimensional or positional differences.

### **Sales procedure**

For the automated deburring of undefined edges there are a number of different mission statements.

Therefore our portfolio now includes more than 20 different tool types.

However, we do not see our task as merely selling the deburring tools we produce. It is very important to us that each individual customer receives the solution that best suits his application. For this reason, we also clarify the respective task in detail in advance.

Why do we do this: because we see it as our responsibility to ensure that you receive a tool that meets your expectations 100% - and that you as a customer get the greatest possible benefit from your investment. So get in touch with us today.